## Four veteran controllers become flight directors

The Mission Operation Directorate has named four new flight directors for future assignments in the Mission Control Center.

The four new flight directors, all former flight controllers, are Kelly Beck, LeRoy Cain, John Curry and Richard LaBrode.

Beck is from Cahokia, III. She holds a bachelor's degree in aerospace engineering from Parks College of St. Louis University and a master's in physical sciences from the University of Houston Clear Lake. Beck, 31, has been a part of the space program for almost 10 years, first as a government contractor and more recently as a JSC

Before being selected as flight director, she supported numerous space shuttle missions, 16 of them as a guidance and procedures officer responsible for the onboard guidance and navigation.

Cain joined Rockwell Shuttle Operations Co. at JSC in 1988. He became a JSC employee in 1991. Before being appointed a flight director he served as a guidance, navigation and control officer for numerous shuttle missions, including 14 flights as the ascent/entry GNC officer. More recently he served as the lead for the Ascent/Entry Guidance and Procedures Group, overseeing the preflight and real-time operations and support. Born in Dubuque, Iowa,

Cain, 34, holds a bachelor's degree in aerospace engineering from lowa State University in Ames.

Curry is from Albuquerque, N.M. He holds a bachelor's degree in aerospace engineering from Texas A&M. Curry, whose NASA career began in 1987, served as a flight planner on 18 space shuttle missions, four of them as lead flight activities officer. In April 1997, Curry, 33, transferred to the Operations Liaison Office and supported Mike Foale's Mir/NASA-5 mission as one of the NASA operations leads in the Russian mission control center outside Moscow

Four months later, Curry was named lead for International Space

Station mission operations in Russia. He will remain in that position until completion of the STS-88 mis-

LaBrode, 36, was born in Orleans, France, but grew up in St. Louis, Mo. He holds a bachelor's degree in electrical engineering from the University of South Florida in Tampa.

A 13-year veteran of the space program, LaBrode began as a contractor employee and served as a flight controller in the Communications Group. He is a veteran of 51 shuttle missions, 31 of which he supported as an instrumentation and communications officer. He became a NASA civil servant when he was selected as a flight director.





**Beck** 

Cain





Curry

LaBrode

### Wilcutt takes over in Russia for Halsell

Terry Wilcutt will replace fellow astronaut Jim Halsell as the NASA manager of operational activities at Star City, Russia.

The tenth astronaut to serve in this rotational position, Wilcutt will sup-



Wilcutt

port the training preparaand tions of NASA astronauts at Gagarin Cosmonaut Training Center, Star City. A Marine Corps lieutenant colonel, he will be the primary liaison between NASA and cos-

monaut training center management, and will continue operational and personal relationships with Star City management and the cosmonauts.

Wilcutt has three flights to his credit. He first flew as the pilot on STS-68 in 1994. In 1996, he was the pilot for STS-79, the fourth shuttle-Mir docking mission, and in 1998, he commanded STS-89, the eighth docking mission.

#### JSC's Woods earns Flight Safety Award

JSC employee Karon Woods of the Safety, Reliability and Quality Assurance Office recently received the NASA Flight Safety Award.

The award recognizes extraordinary



contributions to flight safety that avoid potentially catastrophic mistakes.

Fred Gregory, NASA associate administrator for safety and mission assurance. presented the

Woods and her eam dev

software tool that enables NASA to continuously assess system risks of all shuttle elements. The tool will be available to industry to improve airplane, auto and consumer product safety.



FOOT CHECK—STS-88 Mission Specialist Nancy Currie works on a foot restraint attached to the Unity connecting module, part of the International Space Station, in the Space Shuttle Processing Facility at Kennedy Space Center. During the mission, Unity will be mated to the Zarya control module, which already will be in orbit. The crew was at KSC for the Crew Equipment Interface Test. STS-88 is scheduled for launch Dec. 3.

# **Space walkers** join third Hubble servicing crew

By Eileen Hawley

A team of veteran astronauts will begin training to install new instruments and upgrade systems to enhance the scientific capabilities of the orbiting Hubble Space Telescope.

Crew members Steve Smith, Mike Foale, Claude Nicollier and John Grunsfeld will conduct a record six space walks during the STS-104 mission, scheduled for launch in May 2000. Smith will be the payload commander, coordinating the astronauts' space-walking activities.

"The ambitious nature of this mission, with its six space walks, made it important for the payload crew to begin its training as early as possible," said Flight Crew Operations Director Dave Leestma.

The crew will rendezvous with and capture the orbiting Hubble Space Telescope, and secure it in Columbia's payload bay using the shuttle's robot arm. Then, working in teams of two, the veteran astronauts will venture into the payload bay performing a variety of tasks that will improve the productivity and reliability of the telescope.

Both Smith and Nicollier have previous experience with Hubble. Smith performed three space walks during the second Hubble servicing mission

in February 1997. Nicollier operated the robot arm during the first visit to the telescope during STS-61 in 1993. Foale has spent more than 10 hours conducting space walks from both the shuttle and Russia's Mir Space Station. Grunsfeld has two previous space flights.

Meanwhile, veteran cosmonaut Sergei Krikalev has been assigned to the crew of STS-88, the first American International Space Station assembly mission.

Krikalev, who will be one of the first full-time residents on the station. will join Commander Bob Cabana, Pilot Rick Sturckow, Mission Specialists Nancy Currie, Jerry Ross and Jim Newman when Endeavour launches in December.

A cosmonaut since 1985, Krikalev has accumulated more than one year and three months in space as a member of two Mir space station crews. He has flown on board the shuttle once before, as a member of the STS-60 crew in February 1994.

During that nine-day flight, Krikalev operated the shuttle's robot arm and supported a variety of materials science experiments. Throughout the shuttle-Mir program, he supported operations, working in Mission Control.

## **Culbertson replaces Chilton in station**

Frank Culbertson, who has led NASA's shuttle-Mir program since August 1995, will take over for departing Kevin Chilton as acting International Space Station deputy program manager for operations.

Culbertson, a veteran of two space flights, has guided the Phase 1 Program through all but the first of the nine successful shuttle-Mir docking missions and more than two years of continuous American presence aboard Russia's Mir Space Station.

Chilton, recently selected for promotion to the rank of brigadier general in the U.S. Air Force, is leaving NASA to continue his military career. A veteran of three space flights, Chilton has overseen the operational planning for the International Space Station since 1996.

"Having Frank Culbertson's Phase 1 leadership and management experience and expertise applied to the International Space Station is certainly appropriate as we enter what will be one of the most challenging and exciting times in the history of space flight—the assembly of the International Space Station in orbit," Brinkley said.

A three-time shuttle veteran,

Chilton commanded STS-76, the third docking mission to the Mir, and flew on STS-49 in May 1992, and STS-59 in April 1994, logging more than 704 hours in space.

Culbertson, a retired Navy captain, commanded Discovery on STS-51 in September 1993, deploying the Advanced Communications Technology Satellite and deploying and retrieving an astronomy satellite. He served as pilot of Atlantis in November 1990 on STS-38, a classified Department of Defense mission. Culbertson has logged more than 344 hours in space.



**Frank Culbertson** 

## Data processing team hangs STS-91 plaque

The STS-91 Data Processing Systems team earned the right to hang the mission plaque in the Mission Control Center following a successful June 11 landing.

Terri Murphy, the STS-91 ascent/entry and Orbit 1 DPS Officer, was selected to hang the plaque in recognition of the way in which she and the rest of her team handled the problems associated with the computer software bug that occurred several days before landing.

"Their performance was a shining example of good old fashioned flight control operations," Dye said. "They were faced with a new and unusual problem which had never been simulated or predicted. They knew that the software had some sort of internal problem, and that the only sure way to eradicate the bug was to shut down the only working guidance and navigation computer, leaving the orbiter without control, and then bring up a fresh machine.

"Despite the seriousness of such a step, the team recommended the major reconfiguration with confidence, and followed through with clear and concise directions for the team and the crew to recover the system," he concluded.

Team member Robert Hudson climbed the ladder to position the plaque.



STS-91 Lead Flight Director Paul Dye, right, hands the mission plaque to Terri Murphy, the STS-91 launch and entry data processing systems officer, so that she may hang it in the Mission Control Center.

### Gerstenmaier leads shuttle program integration work

Bill Gerstenmaier became manager for Space Shuttle Program Integration this week.

Gerstenmaier has been with NASA for more than 21 years, and at JSC since 1980. He has served in several senior technical and managerial positions, most recently as manager for operations, Space Shuttle Vehicle Engineering Office, and as the Phase 1 Program operations manager.

He holds a bachelor of science in aeronautical astronomical engineering from Purdue University, and a master of science in mechanical engineering from the University of Toledo.